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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,818	09/19/2003	Luke Martin Leonard Porter	014469-9015-00	6628

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EXAMINER

LEROUX, ETIENNE PIERRE

ART UNIT PAPER NUMBER

2161

DATE MAILED: 10/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 10/665,818	Applicant(s) PORTER, LUKE MARTIN LEONARD	
Examiner Etienne P. LeRoux	Art Unit 2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 31 July 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 2, 6-12, 15-18, 20 and 21 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 2, 6-12, 15-18 20 and 21 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 19 September 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/31/06.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

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Claim Status

Claims 2, 6-12, 15-18, 20 and 21 are pending; claims 3-5, 13, 14 and 19 have been canceled. Claims 2, 6-12, 15-18, 20 and 21 are rejected as detailed below.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The present abstract is not in narrative form.

Drawings

The drawings are objected to under 37 CFR 1.83(b) because they are incomplete. 37

CFR 1.83(b) reads as follows:

When the invention consists of an improvement on an old machine the drawing must when possible exhibit, in one or more views, the improved portion itself, disconnected from the old structure, and also in another view, so much only of the old structure as will suffice to show the connection of the invention therewith.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing

should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

The objection to the drawings will not be held in abeyance. Figure 1 shows a time cube with X time Axis 102, Y Time Axis 128 but the Z Axis is not identified. It is unclear if the Z axis is a time axis.

Applicant is required to provide corrected drawing(s) within **TWO** (emphasis added) of the mailing date of this Office action in order to avoid abandonment.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 12, 15, 16, 17, 18, 20 and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

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Claim 21 recites “performing updating and deleting operations on the values of attributes by inserting into the database a new insert summary position with a new particular transaction time without altering any existing summary position, logical update and delete of valid start time and valid end time for a value of an attribute achieved by inserting the new summary position with a different valid start time or valid end time that is to be true for the particular transaction time.”

The above subject matter is not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 12, 15, 16, 17, 18 and 20 include language similar to claim 21 and are thus rejected on the same basis.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 12, 15, 16, 17, 18, 20 and 21 are rejected under 35 U.S.C. 101 because the claimed invention is not supported by either a claimed utility or a well established utility.

Applicant claims “inserting the new summary position with a different valid start time or valid end time that is true for the new particular transaction time.”

The claimed invention as a whole is not useful and does not accomplish a practical application because it does not have a useful concrete and tangible result. Inserting a different valid start time or a different valid end time into the summary does not have “real world” value,

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particularly since there is a fundamental difference between a start time and an end time.

Furthermore, the claimed “new particular transaction time” is merely an abstract idea lacking usefulness in the real world.

Claims 12, 15, 16, 17, 18 and 20 include language similar to claim 21 and are thus rejected on the same basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 2, 7, 10-12 and 14-20 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pat No 6,754,657 issued to Lomet (hereafter Lomet), as best examiner is able to ascertain.

Claim 21:

Lomet discloses performing updating and deleting operations on the values of attributes by inserting into the database a new insert summary position with a new particular transaction time without altering any existing summary position, logical update and delete of valid start time and valid end time for a value of an attribute achieved by inserting the new summary position with a different valid start time or valid end time that is to be true for the particular transaction time [col 1, lines 10-25, col 1, lines 60-67]

Claims 16-18:

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Lomet discloses:

- i) having values of attributes of said entities in said database [col 1, lines 10-25];
- ii) for said entities providing a valid time start time associated with each said value of said attribute [col 1, lines 30-45];
- iii) for said entities providing a valid time end time associated with each said value of said attributes [col 1, lines 30-45]
- iv) for said entities providing a transaction time associated with said valid time start time and said valid time end time for each said value [col 1, lines 30-45]
- v) when querying said database an appropriate said transaction time is used so as to ensure that an appropriate value for said attribute is used and that appropriate valid time start and end times are used [col 1, lines 60-67]

Claim 2:

Lomet discloses wherein said valid end time is provided by either: (i) storing said valid end time entered in said database associated with said value for said attribute; or (ii) determining said valid end time from a valid start time of another value of said attribute stored in said database [col 1, lines 30-45].

Claim 6:

Lomet discloses the elements of claim 1 as noted above but does not disclose said values for data entries in a relational database. Official Notice is taken that a relational database is well-

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known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lomet to include said values for data entries in a relational database for the purpose of organizing information in tables such that information entry and retrieval is simplified.

Claim 7:

Lomet discloses providing entities in said database with time dependent values for attributes in accordance with claim 1 and querying said database for a value for selected data entity(s) [col 1, lines 10-25].

Claims 10-12 and 15:

Lomet discloses wherein data relating to each specific data entity is held in corresponding data-entity associated Time Cubes that comprise valid and transaction time related values for different attributes in different attribute-slices of said Time Cube [col 1, lines 60-65]

Claim 20:

Lomet discloses

locking the field being accessed for modification and not locking other fields in the row that contains the field being accessed for modification, this being achieved by associating a transaction time with the information in each field, said transaction time being related to the system time at which the information was inserted into the database, permitting insert only operations on the database, with alter and/or delete functionality performed by insert-only addition of another value of an attribute held in a certain field in an additional field differentiated

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from other fields for the same attribute by its associated transaction time, and selecting an appropriate field for access by selecting an appropriate transaction time, as well as selecting said attribute to be queried or modified [Fig 8]

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lomet in view of US Pat No 5,179,650 issued to Fukui et al, as best examiner is able to ascertain.

Claims 8 and 9:

Lomet discloses the elements of claims 1 and 7 as noted above but does not disclose Temporal Data Dictionary having a set of objects associating specific entities in said database with specific functionality-related parameters which are used in controlling how a processor handles a query relating to said entities, said Temporal Data Dictionary maintaining data integrity. Fukui discloses a rule dictionary 52 in Figure 1. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lomet to include Temporal Data Dictionary having a set of objects associating specific entities in said database with specific functionality-related parameters which are used in controlling how a processor handles a query

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relating to said entities, said Temporal Data Dictionary maintaining data integrity based on the teachings of Fukui for the purpose of creating a document editor [col 3, line 15].

Response to Arguments

Applicant's arguments filed 7/31/2006 have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e. the timestamp for the start time is set at the time of writing the value of the attribute to the database, or at the time of altering the value – at the time of writing an altered value – not at the time of querying the database) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etienne P. LeRoux whose telephone number is (571) 272-4022. The examiner can normally be reached Monday through Friday between 8:00 am and 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on (571) 272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Etienne LeRoux

9/28/2006



Primary Examiner